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November 8, 2019

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
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Notice of *Ex Parte* Presentation:

> **ET Docket No. 13-84**, Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies
> **RM-11785**, Amendment of Parts 2 and 97 of the Commission's Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva 2015) To Allocate the Band 5351.5-5366.5 kHz to the Amateur Radio Service
> **WT Docket No. 16-239**, Amendment of Part 97 of the Commission's Amateur Radio Service Rules to Permit Greater Flexibility in Digital Data Communications

Dear Ms. Dortch:

On November 5, 2019, members of the Board of Directors' Executive Committee of the ARRL, the national association for Amateur Radio (ARRL) and their Washington Counsel met with the Chief Engineer and staff members of the Office of Engineering and Technology. A list of participants is attached. The points discussed are set out below and are consistent with submissions made earlier by the ARRL in the above-referenced proceedings.

ET Docket No. 13-84: The ARRL participants expressed concern with changes proposed to the Commission's Radiofrequency (RF) exposure policies that would affect Radio Amateurs. Amateurs are required to assess their installations if signals exceed levels set forth at Section 97.13(c) of the Commission's Rules.[1] Our understanding is that the draft Report and Order under consideration by the Commissioners would eliminate provisions such as the referenced amateur-specific table, even though this specific table was based in large part on a

[1] *See* 47 C.F.R. 97.13(c).

Commission study of typical amateur radio installations.[2] The ARRL will evaluate the net effect of any changes adopted by the Commission.

The League requested that the Commission make available on the Internet a calculator to facilitate making the correct calculations required by the Commission's rules. This would be preferable to having available only unofficial third-party calculators the results from which might not be accorded the same degree of deference in local disputes. Toward that end, several existing software programs targeted to Amateur Radio operators were suggested that might serve as models for this purpose.

RM-11785: This ARRL petition requests that the Commission implement provisions of the ITU Radio Regulations adopted at WRC-2015 that provide for a secondary allocation to the Amateur Radio service of the 5351.5-5366.5 kHz band. The ARRL proposed that 100 watts ERP be permitted on the new band, which is consistent with the power authorized for the current five channels that Amateurs are permitted to use on a secondary basis in this frequency range. The ARRL also requested that amateur secondary use of the four existing allocated channels outside the new band continue to be authorized at 100 watts ERP subject to the existing restrictions.

Amateur secondary use of 5 MHz spectrum is particularly valuable for amateur purposes because it is located approximately halfway between the 7.0 MHz and 3.5 MHz bands and bridges those bands when propagation conditions prevent use of the other two bands for local and medium distance communications. This continuum of communication capabilities is valuable for emergency communications, especially between the U.S. and Caribbean nations during hurricane season.

The Commission recently made public a letter from the National Telecommunications and Information Administration (NTIA) in which, with advice from the Interdepartment Radio Advisory Committee (IRAC), NTIA proposes deletion of the existing four channels and in their place adoption of a secondary allocation for Amateur Radio for the 5351.5-5366.5 kHz band. (The current fifth channel is within this band.) Additionally, instead of the 100 watts ERP requested by the ARRL, NTIA proposes a maximum permitted power of 15 watts EIRP (9.1 watts ERP) as approved at the WRC-2015.[3]

The ARRL has taken every measure to ensure that Radio Amateurs understand their obligations when using the secondary spectrum at 5 MHz. After more than a decade of limited use we are not aware of a single interference complaint by a primary user. We expressed concern that existing uses of the four current channels would have to relocate to the very narrow 15 kHz of contiguous spectrum if NTIA's proposal is adopted. We also expressed concern that 9 watts ERP in too many cases would hamper the intended communications, particularly during

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[2] *See* FCC, Measurements of Environmental Electromagnetic Fields at Amateur Radio Stations, FCC/OET ASD-9601 (1996).

[3] *See* Letter from Peter A. Tenhula, Acting Associate Administrator, Office of Spectrum Management, National Telecommunications and Information Administration to Mr. Julius P. Knapp, Chief, Office of Engineering and Technology, Federal Communications Commission, and attachments thereto (dated Sept. 10, 2018).

hurricane season in late summer and early fall when static levels and other noise at 5 MHz often hampers reception. We note that our neighbor Canada considered these facts and decided to retain the former four channels when it implemented the new contiguous band as well as the 100-watt ERP power level.[4] We hope that serious consideration will be given to a similar outcome in the U.S.

WT Docket No. 16-239: The ARRL participants expressed concern that regulations continue to encourage the ability of Radio Amateurs to foster innovation through experimentation with new digital techniques. The existing rules authorize Amateurs to use new digital techniques without prior Commission approval provided that the techniques employed are publicly documented. When adopting the rule, the Commission approved the published documentation for three specific techniques that demonstrate the level of documentation required by the rule.[5]

Several individual radio amateurs have filed with the Commission descriptions of their efforts to monitor some of the digital modes discussed in Docket 16-239. Each succeeded in monitoring the transmissions that some have stated cannot be decoded.[6] We also noted that software has been developed and made available at no charge that permits viewing Winlink Pactor signals utilizing a Raspbery Pi.[7]

We noted that the regulation that prohibits "messages encoded for the purpose of obscuring their meaning, except as otherwise provided…."[8] is taken verbatim from the ITU Radio Regulations as adopted at the World Radio Conference in 2003 (WRC-2003). It was adopted at the Conference to make clear that amateur communications encoded for digital transmission are authorized in the Amateur Radio service so long as they are not encrypted. As explained in the ARRL monthly magazine QST shortly after the Conference concluded: "… today amateurs use many codes, and so … the phrase 'plain language' …. in the old regulation

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[4] *See* Government of Canada, Innovation, Science and Economic Development Canada (ISED), Proposed Revisions to the Canadian Table of Frequency Allocations (2017 edition), SMSE-005-17 (Aug. 2017), available here: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11306.html; and Decision on Proposed Revisions to the Canadian Table of Frequency Allocations, SMSE-07-18 (April, 2018), available here: https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/SMSE-07-18-CTFA-2018-decision.pdf/$file/SMSE-07-18-CTFA-2018-decision.pdf.

[5] The documentation for the three modes is published on the ARRL's website, *see* Amendment of the Amateur Service Rules to Clarify Use of CLOVER, G-TOR, and PacTOR Digital Codes, 10 FCC Rcd 11044 at fns. 4,5 (WTB, 1995).

[6] *See* Gordon L. Gibby MD, KX4Z, Ex Parte Comments, WT Docket 16-239, "Inconvenient Observations" (filed Nov. 1, 2019); *see also* John S. Huggins, KX4O, Ex Parte Comments, WT Docket 16-239, "Exhibit Demonstrating over the air monitoring of a Winlink email exchange using, in this example, the Pactor Mode" (filed July 30, 2019); and "Addendum to previous exhibit" (filed Aug. 13, 2019).

[7] *See* Hans-Peter Helfert, Spezielle Communications Systeme GmbH & Co. KG, Ex Parte Comments, WT Docket 16-239, "Regarding monitoring/transparency of our PACTOR 3/4 communications modes (filed Oct. 23, 2019). *See also* PMON – a PACTOR® Monitoring Utility for Linux: https://www.scs-ptc.com/en/PMON.html.

[8] 47 C.F.R 97.113(a)(4).

was replaced to provide that transmissions between amateur stations 'shall not be encoded for the purpose of obscuring their meaning…'"[9]

Pursuant to Section 1.1206 of the Commission's Rules, this letter is being electronically filed in the above-referenced dockets and a copy e-mailed to participants. Please refer any questions to David Siddall at the address below.

Respectfully submitted,

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FOR AMATEUR RADIO

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[9] *See* Michael Owen, VK3KI, New Regulations for the Amateur Services (sidebar to WRC-03 from the Amateur Perspective), QST, September 2003 at p. 42.

ATTACHMENT

ARRL, the national association for Amateur Radio (ARRL)

Rick Roderick, President
Tom Abernethy, Atlantic Division Director
Fred Hopengarten, New England Director
George W. "Bud" Hippisley, Roanoke Division Director
John Robert Stratton, West Gulf Division Director
David Siddall, ARRL Washington Counsel

Office of Engineering and Technology

Julius Knapp, Chief Engineer
Ron Repasi, Deputy Chief
Jamison Prime, Associate Chief (Legal)
Nicholas Oros, Chief, Spectrum Policy Branch